

CLAIMS

1. *Dub A5* 1. An air flow control system comprising,
2. a lightweight headgear structure,
3. a fan mounted to said headgear structure to generate air flow around
4. said headgear structure,
5. air flow monitoring means mounted to said headgear structure to
6. monitor the air flow adjacent to said headgear structure.

1. 2. The system recited in claim 1 including,
2. a power supply connected to supply power to said fan.

1. 3. The system recited in claim 1 wherein,
2. said air flow monitoring system is a mechanical apparatus.

1. 4. The system recited in claim 1 wherein,
2. said air flow monitoring system is an electrical apparatus.

1. 5. The system recited in claim 1 wherein,
2. said power supply comprises a battery.

1. 6. The system recited in claim 1 including,
2. a shroud adapted for covering said headgear structure.

1. 7. The system recited in claim 2 including,
2. first indicia means connected with said air flow monitoring means to
3. provide an indication of a predetermined operating condition thereof.

1 8. The system recited in claim 7 wherein,

2 said first indicia means comprises a light emitting diode.

1 9. The system recited in claim 2 including,

2 second indicia means connected to said power supply to provide an

3 indication of a predetermined operating condition thereat.

1 10. The system recited in claim 9 wherein,

2 said second indicia means comprises a light emitting diode.

1 11. The system recited in claim 3 wherein,

2 said air flow monitoring means includes a pivotally mounted arm which

3 is selectively positioned by an air flow around said headgear structure.

1 12. The system recited in claim 11 including,

2 a reference magnet mounted to said headgear structure adjacent to

3 said arm,

4 a positioning magnet mounted on said arm and adapted to interact with

5 said positioning magnet to locate said arm.

1 13. The system recited in claim 12 including,

2 a Hall-effect device mounted on said headgear structure,

3 a sensing magnet mounted on said arm to selectively alter the

4 operation of said Hall-effect device as a function of said arm.

1 14. The system recited in claim 4, wherein,
2 said air flow monitoring system includes a current sensing device for
3 determining the amount of current supplied to said fan.

1 15. The system recited in claim 14 including,
2 voltage regulator means for supplying a relatively fixed voltage to said
3 current-sensing device, and
4 a sensing circuit connected to said current sensing means for detecting
5 an excessive current in said current sensing mean.

1 16. The system recited in claim 15 wherein,
2 said sensing circuit includes an operational amplifier.

1 17. The system recited in claim 3 including,
2 a voltage detect circuit connected to a power supply to detect the output
3 level therefrom.

1 18. The system recited in claim 4 wherein,
2 said air flow monitoring system includes
3 a voltage sensing device for determining the amount of voltage supplied
4 to said fan.

1 19. The system recited in claim 18 including,
2 a current controlling means for supplying a relatively fixed current to
3 said voltage sensing device.

- 1 20. The system recited in claim 5 including,
- 2 a battery voltage monitoring means to monitor the voltage level
- 3 produced by said battery.